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Debt Financing: *Techniques and Trends*

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Introduction

Persistent, although somewhat declining, inflation; high and volatile interest rates; and governmental forays to finance pending programs and deficits are paramount among the influences causing change in the debt markets. Although investors are attracted by high interest rates, fear of losses in portfolio values or purchasing power—due to further increases in rates or failure to bring inflation under control—gives them pause in making long-term commitments. Similarly, would-be borrowers with real needs hesitate to burden themselves with high-cost obligations beyond a short-term, lest subsequently falling rates produce better financing opportunities. While such dilemmas undoubtedly contributed to the more than \$10 billion dollar decline in net corporate bond sales in 1981 from the \$37.2 billion recorded in 1980, issuers and buyers are adjusting to prevailing conditions.

This survey was undertaken to determine how corporations are coping with financing problems in these trying times by exploring approaches now used or being contemplated. Based primarily on questionnaire responses from 107 companies, virtually all of which are large and publicly owned (63 manufacturers, including several diversified concerns also engaged in mining or transportation; 36 utilities; and 8 retailers), this report also draws on other information, including a limited number of interviews.

Recent and Proposed Debt Financings

During the past two years, through the Summer of 1981, 77 participating companies have used a variety of means to approach the long-term taxable debt market (Table 1). Twenty-seven participants—twenty-one manufacturers, four utilities, and two retailers—did not borrow; three manufacturers did not comment on their activities.

The financing patterns revealed by recent borrowings are pretty much routine. Firms in the three industry

groups rely on one or a combination of traditional sources for the bulk of their financing needs. Although fewer in number than their manufacturing counterparts, utilities accounted for slightly more offerings during the period.

Table 1 provides only a hint—the four deep-discount bond financings reported by manufacturers—of the changes taking place in the debt market. Better indication comes from the detailed responses of participants, some of whom advise that while standard financing instruments were used, certain nuances were integral to them. For example, several mention settling for shorter maturities than usual, borrowing in foreign currencies, and making direct placements to income funds.

Ninety participants plan debt financings during the next two years. Sixteen of them—twelve manufacturers, one utility, and three retailers—do not anticipate borrowing; one manufacturer did not reveal its plans. Table 2 confirms the move toward innovation begun earlier in the rising number of esoteric financings—deep-discount and variable rate or indexed issues—reflected. Further evidence of this trend is found in the comments of some in the “to be determined” category, who indicate a willingness to adapt financing designs to the demands of the marketplace.

Rationale

Regardless of the approach, or combination of approaches taken, and whether referring to accomplished or proposed financings, companies offer one or more of the following reasons for their choices:

- Flexibility
- Cost
- Suitability
- Necessity

Because the ability to raise funds during emergencies or

Table 1: Actual (1979-1981) Debt Financings by 77 Participating Companies

Financing Approach	Number of Companies			Total
	Manufacturing	Utility	Retail	
Debentures	11	11	3	25
Mortgage bonds	—	23	1	24
Private placements	13	5	1	19
Notes	10	2	1	13
Term bank loans	3	8	1	12
Convertible debentures	6	—	1	7
Deep-discount bonds	4	—	—	4
Other ¹	2	4	—	6
Total	49	53	8	110

¹Includes equipment trust financing, bankers acceptance facility, commercial paper borrowing supported by letter of credit, nuclear fuel financing, and project financing.

Table 2: Proposed (1982-1983) Debt Financings by 90 Participating Companies

Financing Approach	Number of Companies			Total
	Manufacturing	Utility	Retail	
Debentures	16	14	2	32
Mortgage bonds	—	18	1	19
To be determined	14	3	2	19
Deep-discount bonds	7	—	1	8
Private placements	2	4	2	8
Convertible debentures	6	2	—	8
Term bank loans	3	3	1	7
Notes	2	2	—	4
Variable rate or indexed bonds	2	2	—	4
Other	3 ^a	—	—	3
Total	55	48	9	112

^aIncludes leveraged lease and equipment trust financings.

when opportunities present themselves is crucial to corporate well-being, many financial executives take pains to ensure it. They always like to have alternatives in the event a particular financing avenue become clogged, and accordingly select instruments that provide options. For example, the chief financial officer of a diversified manufacturer explains:

"It has long been [the company's] policy to maintain a debt level not to exceed 35 percent of total capitalization, except possibly for very short periods of time. In view of this policy, we felt at the time of the last financing that it would be wise to issue convertible preference stock and thus not have our debt reach a level that would only permit one form of financing—equity—in the future."

Aid in the achievement of capitalization ratios is not the sole source of flexibility claimed for chosen financing approaches. A few believe the use of subordinated debentures, especially those with senior liquidation rights, facilitates prospective borrowings. And a couple that rely on private placements claim that the relative ease with which covenants—on fixed-charge coverages, for instance—can be modified gives them considerable financing maneuverability.

Of course, cost is a very important consideration in arranging any financing because the lower the price, the greater the potential for profit. Participants are quick to note the savings on interest rates that attach to their use of particular debt instruments, notably convertible debentures and mortgage bonds. They indicate that the use of convertible debt enables issuers to save many basis points in coupon costs because purchasers are willing to accept lower rates for the chance to realize capital gains by exchanging debt holdings for common stock at an opportune time. Similarly, several firms using mortgage

bonds find that because these instruments are secured, lower rates attach to them than to such unsecured issues as debenture bonds. But an occasional respondent claims that the cost of administering mortgage bonds makes them more expensive in the long run than their unsecured correspondents.

Almost all users, actual and prospective, of original-issue discount obligations cite savings as an edge such securities offer vis-a-vis straight debentures. This claimed plus and others, as well as the minuses attributed to these innovative instruments, are explored in the next section.

Appropriateness as determined by a consideration of available alternatives, present and projected needs, and cost and capital-structure goals holds the key for many companies in deciding upon a debt-financing route. Thus, for some seeking future improvement in debt ratios without resorting to equity sales because of currently depressed stock prices, convertible debentures are deemed most suitable. Others, anxious to extend debt maturities, also find convertibles more fitting than straight debentures. Still others hold revolving credits best fit their needs by providing interim financing, which can be re-funded with more permanent financing when and if long-term rates drop.

But not all are able to pick and choose. Market and industry conditions sometimes heavily influence financing approaches. A utility executive indicates, for instance, that because of capital intensity "it has been necessary for us to seek out every conceivable form of financing . . ." And a few others with pressing needs for funds make it clear that buyer preferences outweigh their own in shaping financings.

Innovative Debt Instruments

While unsettled conditions over the past couple of years caused disarray in the debt market, they did not

eliminate its viability by any means. Indeed, they prompted fairly widespread improvisation among borrowers, lenders and intermediaries to arrange deals that would meet the requirements of all parties. The result: a group of new, or at least revitalized, financing arrangements that give credence to the old saw that "where there's a will there's a way." Together with conventional approaches (see accompanying box) they have enabled most corporations to weather the troubled period.

Deep-Discount Bonds

Although some lower credit-quality companies have long offered issues at discounts from par and even a few highly regarded firms have taken the same route in private placements, it was only recently that firms with strong bond ratings started to use this approach in public financings. Actually, deep-discount bonds take either of two forms: (1) standard instruments, which are priced at less than par and pay interest at less than the current market rate; and (2) zero-coupon instruments, which are priced substantially below par and provide no current interest payments whatsoever. Both variations are redeemable at par at maturity. (A rarely seen wrinkle adds a convertibility privilege to such issues.) An example of a standard deep-discount offering: a \$300 million dollar issue priced at 50 percent of stated value, paying 6.75 percent interest, redeemable at 100 percent of face value and maturing in 20 years. An example of a zero-

coupon offering: a \$600 million dollar issue priced at 25 percent of face value, free of current interest but redeemable at 100 percent of face value and maturing in ten years. Gross proceeds to the issuers would amount to \$150 million in each of these offerings.

Corporations realized more than \$3.4 billion from the sale of deep-discount (including zero-coupon) bonds during 1981.¹ The rewards such issues offered to both sellers and buyers in the prevailing milieu undoubtedly account for their increasing popularity.

Corporate issuers can reap savings by selecting deep-discount rather than straight-debenture offerings. Investors are willing to accept a coupon 50 or so basis points less than would attach to a conventional issue because the need to reinvest interest payments, perhaps at lower than original yields, is eliminated. And the deduction on the issuer's federal tax return of all the implicit interest charges each year, even though only the coupon rate (if one exists) is paid out, also serves to lower the effective borrowing cost. Exhibits 1 and 2 illustrate the discounted cash-flow internal rate-of-return approach many employ to contrast costs of conventional issues with those of deep-discount and zero-coupon issues.

Boosters of deep-discount offerings maintain that their advantages extend beyond cost reductions. Some say

¹Merrill Lynch Pierce Fenner & Smith, Inc., *Bond Market Comment*, Volume 4, Numbers 44 and 51, 1981.

Traditional Debt Instruments

Short-term

Trade Credit—a major source of intercompany financing in which one company gives time to another for payment of goods sold on trust. Often arranged on open account (that is, without use of a debt instrument other than an invoice), such credit may extend for 30 to 60 days or even longer, depending upon industry practices. Promissory notes, bankers' acceptances, or trade acceptances are sometimes employed to document inter-company transactions.

Commercial Paper—unsecured promissory notes of limited duration (270 days or less) sold by companies in the money market, usually for working capital purposes.

Lines of Credit—commitments by commercial banks to lend specified amounts to companies for stipulated periods. Such pledges, though not legally binding on banks, are usually honored. They are typically unsecured, of one-year term, call for an annual cleanup (period of 30 days or so during which no borrowings are outstanding under the line), and are renewable.

Long-term

Bank loans—secured or unsecured advances from commercial banks to companies. Terms may extend up to ten years or more with repayment schedules subject to negotiation. Under revolving credit agreements, companies are permitted to renew short-term note obligations to creditor banks during a specified number of years.

Bonds—long-term promissory notes that have maturities of up to 30 or 40 years, or even longer. Debentures are unsecured long-term obligations. Convertible debentures give holders the right to receive repayment in common shares of issuers instead of cash. Mortgage bonds are long-term corporate obligations that are secured by real property.

Private placements—securities, often corporate notes with maturities of up to ten or more years or preferred issues subject to retirement, sold directly by corporations to investors without the underwriting services of investment bankers. Life insurance companies are prominent sources of such funds.

such issues enable them to obtain lengthier maturities than would be possible were conventional instruments employed. (A number of deep-discount bonds have carried 30-year terms.) Ease of marketing and frequent absence of sinking-fund requirements are other features that some deep-discount obligation issuers find attractive.

Of course, deep-discount issues are not without disadvantages to sellers. One is the need to make a balloon payment (the entire principal) at the time of maturity. But perhaps the greatest drawback is that refundings are impractical, even in the absence of banning provisions, should interest rates decline dramatically. It would be uneconomical to call a deep-discount issue at par for many years under all but extraordinary circumstances.

Tax-exempt purchasers, like pension funds, are usually drawn to these issues because they are not affected by the income tax requirement to report interest income, even though some or all of it is deferred until maturity. And, as already noted, competitive returns and virtual freedom from reinvestment concern, particularly if an interest rate decline is suspected, also serve as appeals.

There are other attractions, too. Many institutional investors buy deep-discount issues via swaps. These arrangements enable investors to dispose of old low-coupon bonds already on their books without realizing losses (rising interest rates have eroded market prices) by exchanging them with underwriters for new issues, perhaps with better yields. Others simply like the in-

creased diversification possibilities offered by issues selling at substantial discounts from par.

Floating and Variable-Rate Debt

Many investors do not believe that interest rates have reached their peaks. Consequently, they are unwilling to commit their funds for long periods of time at present rates of return. Several participants in this survey hope to lure these reluctant purchasers by offering floating or variable-rate obligations.

Floating-rate issues pay interest frequently, sometimes monthly. Rates are based on those for commercial paper, or the like, and are adjusted as often as weekly. Variable-rate debt is subject to less frequent adjustment—every two years or so—and rates are usually tied to those for longer term issues such as Treasury notes. In rare instances, bond rates may be adjusted upward if the issuing company's profits climb above stipulated levels, or if the price of a designated commodity rises materially.

Many queried respondents claim these issues facilitate financings because they enable issuers and purchasers to avoid betting on the future course of interest rates, and thus to deal better with inflationary swings. And a few maintain that adjustable-rate debt can help secure longer maturities or even, in some respects, serve as a substitute for commercial paper borrowings.

However, other participants believe that unless issuers are convinced rates are going to decline, or have a very compelling need for financing, floating- or variable-rate

Exhibit 1: Comparative Cash Flow Analysis of Par Bonds¹ and Discount Bonds²—A Utility Company

Type	Time	Before Tax	Tax Effect	After Tax	Present-Value Factor	After-Tax Present-Value Cost
Par Bonds¹						
Proceeds	0	\$94,211,250	—	\$94,211,250	1.000000	\$94,211,250
Interest	1-60	(6,241,495)	.54	(3,370,407)	24.560006	(82,777,216)
Principal	60	(94,211,250)	—	(94,211,250)	.121364	(11,433,854)
Rounding Difference						\$ 180
Implied after-tax cost is 6.6406%						
Deep Discount²						
Proceeds	0	\$94,211,250	—	\$94,211,250	1.000000	\$94,211,250
Interest	1-60	(6,125,000)	.54	(3,307,500)	25.875033	(85,581,672)
Amortization of discount	1-60	1,346,479	.46	619,380	25.875033	16,026,478
Principal	60	(175,000,000)	—	(175,000,000)	.140894	(24,656,450)
Rounding Difference						\$ (394)
Implied after-tax cost is 6.6406%.						
After-tax cost savings of deep-discount financing: 51 basis points.						

¹Based on a 30-year bond with a 13.25% coupon offered at 100; theoretically the rate would be 75 to 100 basis points higher.

²Based on a 30-year bond with a 7% coupon offered at 53.835, or a 13.25% effective yield. (Actual Martin Marietta Corporation debenture offering)

Exhibit 2: Comparative Cash Flow Analysis of Par Bonds¹ and Zero Coupon Bonds²—A Utility Company

Type	Time	Before Tax	Tax Effect	After Tax	Present-Value Factor	After-Tax Present-Value Cost
Par Bonds¹						
Proceeds	0	\$25,842,000	—	\$25,842,000	1.00000	\$25,842,000
Interest	1-20	(1,808,940)	.54	(976,828)	13.85860	(13,537,469)
Principal	20	(25,842,000)	—	(25,842,000)	.47612	(12,303,893)
Rounding Difference						\$ 638
Implied after-tax cost is 7.561%						
Zero Coupon²						
Proceeds	0	\$25,842,000	—	\$25,842,000	1.00000	\$25,842,000
Interest	1-20	0	.54	0	14.18296	0
Amortization of discount	1-20	3,707,900	.46	1,705,634	14.18296	24,190,939
Principal	20	(100,000,000)	—	(100,000,000)	.50033	(50,033,000)
Rounding Difference						\$ (61)
Implied after-tax cost is 7.046%.						
After-tax cost savings of zero coupon financing: 51 basis points.						

¹Based on a ten-year bond with a 14% coupon offered at 100; theoretically the rate would be 75 to 100 basis points higher.

²Based on a 10-year bond with a 0% coupon offered at 25.842, or a 14% effective yield.

issues should be avoided. Detractors fear the assumption of unpredictable burdens that could prove too heavy should rates unexpectedly rise. They are also convinced that these financings involve extra risk, make planning difficult, and carry the seeds of credit-rating problems.

While seldom employed by participating companies and hardly coming to the fore, other novel bonds are starting to be issued. These include bonds (or notes or preferred shares) with puts, warrants or equity participations. All are designed to bolster debt marketability by protecting investors from the ravages of inflation or offering them profit-enhancement possibilities. Bonds with puts appeal to buyers anxious to avoid being left with portfolio losses in the event interest rates should climb from levels prevailing at the time of purchase. Put attachments give such purchasers the comfort they desire by granting them the right to resell bonds to issuers at par value at specified periodic intervals prior to maturity. Naturally, there is a quid pro quo; investors in debt issues of this kind settle for a somewhat lower coupon rate than would attach to a straight obligation.

When issued with warrants, bonds tend to find favor among investors who believe interest rates are at or near their zenith. In effect, these instruments allow purchasers to buy additional bonds at the original price during a period of, say, six months following the original offering. By "doubling up" following a decline in rates, a purchaser could probably exercise such a right profitably; the market prices of bonds acquired in such subsequent purchases would exceed the original or par offering prices because of the higher than prevailing coupon attached to them.

Occasionally bonds are offered in packages that include equity participations. Thus an instrument selling for \$1000, or par, might consist of a bond and five shares of common stock of the issuer. The bond itself, actually sold at a discount, would be redeemable at par. Anything realized from the eventual disposal of the shares would be a bonus. Similarly, to avoid selling equity below book value during adverse markets, firms may offer preferred shares that are redeemable in common shares—perhaps even at a discount from market, but at a future time when conditions might be more propitious.

Other new attractions include promising payment of bonds at maturity in either of two currencies—sterling or dollars, for instance—at pre-set exchange rates, or for either cash or the cash value of a specified number of ounces of silver, and permitting investors to extend notes at stipulated intervals. Such "bells and whistles" are intended to add to the allure of instruments once considered very staid.

Other Novel Approaches

Asset-based financings, many employing leasing arrangements with special twists, are also being tried. Provisions of the Economic Recovery Tax Act (ERTA) of 1981 have liberalized leasing regulations by encouraging the transfer of tax benefits through the use of sale leaseback arrangements.³

³For a discussion of the new leasing provisions and an illustration of the tax-benefit sharing they afford, see Michael E. Levy and others, *Economic Policy Issues*, The Conference Board, 1981, No. 4.

For example, a firm with either a minimal or nonexistent taxable net income could invest in new facilities, sell them and their related depreciation and investment credit tax benefits to a profitable company, and then lease the facilities back for its own use. Such transactions are estimated to have enabled companies selling tax benefits on purchased facilities to realize over \$2 billion in 1981. But they are currently under attack in Congress and their future is uncertain.

Some companies, utilities as well as industrials, are getting financial assistance from unusual quarters. Construction costs for generating units, as well as mills, are being underwritten by customers that ultimately seek to receive the output of these facilities.

Debt-Equity Trades

While neither re-funding nor debt financing, debt-equity trades are considered because of the impact they exert on corporate indebtedness and profitability. These swaps, as they are commonly called, entail nothing more than exchanging common shares for outstanding obligations in like amounts. Why should these mundane transactions cause such a stir? They are increasingly being examined and resorted to because they offer some companies an excellent means of strengthening capital structures and boosting earnings.

The workings of debt-equity swaps are probably best illustrated through the use of an example. Consider Able Corporation's 30-year bonds, carrying 8 percent coupons, issued ten years ago. Because bonds of comparable quality now command yields of about 16 percent, Able's bonds are trading at approximately 50 percent below par. Able could buy the bonds back directly in the marketplace and reap a profit (the difference between the par offering price and the lower repurchasing price). However, since the beginning of 1981 when provisions of the Bankruptcy Act of 1980 took effect, gains on bond repurchases for cash became taxable.

To circumvent the taxation problem, Able's investment bankers purchase bonds at discount prices in the marketplace, and swap them with Able for common shares of comparable value held in the treasury or originally offered. The results: Able buys back bonds sold for, say, \$6 million by issuing common stock worth about \$3 million to its investment bankers. The \$3 million profit is tax free because it qualifies as an exchange of securities. In addition to upping earnings, Able has reduced the percentage of debt in its capitalization and thereby added to its borrowing potential.

As might be expected, the investment bankers do not go unrewarded. Besides the obvious goodwill engendered, commissions flow from the arrangement of swaps, and profits may also be realized on the ultimate disposal of Able's shares.

Fixtures or Fads?

Will "gimmicks" endure or quickly pass from the scene in the event interest rates decline sharply? While opinions vary among respondents, only 23 believe innovations would drop by the wayside were long-term borrowing costs to plummet. Twenty-nine of the other sixty-six providing an answer expect recent innovations to evolve into standards. Twenty-four foresee diminished need for novel approaches—especially deep-discount obligations—since investors will hardly commit funds for lengthy periods just to obtain a guaranteed, albeit low, rate of return. (But, as shown in the quotes below, one respondent objects to this oft-expressed view.) Nine are too unsure to offer a forecast, and four anticipate not only a wider usage but also a broader array of innovative techniques.

Here are some representative comments:

"Most innovative debt financing would prove a passing fad if long-term interest rates dropped sharply and stayed down for a period of at least two years. As interest rates get lower, the advantages of most innovative debt financing become minimal."

Vice President and treasurer,
a manufacturing company

"A sharp drop in interest rates will not mean an end to innovative financing techniques. The two most popular recent innovations, variable-rate or indexed debt and deep-discount or zero-coupon debt, will retain their relative attractiveness regardless of the level of interest rates. In both cases, stability is more important than the level of interest rates. The variable-rate, or indexed debt protects the investor from volatility by providing a constant spread over the then current capital cost throughout the life of the issue. This lessens the risk of erosion of the value of the investor's asset. The zero-coupon or deep-discount issues decrease rate volatility for the investor by locking in the reinvestment rate. In addition, they offer protection against early redemption and potential for price improvement. The issuer will remain attracted so long as current tax benefits exist. In summary, the investor has been 'burned' too often in the past several years by short-lived bond rallies to give up the techniques devised to lessen his exposure to such occurrences without demonstrable proof that rates have stabilized."

Assistant vice president-finance,
a utility company

"I expect innovative debt instruments will continue to be devised, although probably at a much slower

pace, if interest rates drop sharply. Most innovative techniques are the result of investment or commercial bankers trying to attract a specific group of lenders and to create a marketable product to gain clients or of company finance officers attempting to find a solution to a problem that is more or less unique to their company. There are also opportunities to take advantage of peculiarities in tax laws from time to time. These situations will continue to exist."

Treasurer, a manufacturing company

* * *

"As long as the field of corporate finance attracts innovative, imaginative people, there will always be developments to help corporations meet their financing programs in a manner that will effect savings."

Treasurer, a utility company

Ahead in the Debt Market

Survey respondents, in general, anticipate the prolongation of the present difficult conditions in the long-term debt market. Only a small minority anticipates a return to the halcyon days when long-term funds were readily available at relatively inexpensive cost. Table 3 reflects participants' expectations with respect to the coming five years.

Forty-three of the financial executives responding foresee a continuation of volatility. They believe the period ahead will be marked by rapid movement requiring considerable nimbleness on the part of long-term credit seekers. For example, a mining company financial executive of this persuasion warns "that there will at least be periodic scrambles for capital during the early 1980's; and all companies, in order to acquire debt, will have to be imaginative and responsive to changing market conditions." (The experimental Securities and Exchange Commission [SEC] rule permitting shelf registration of possible issues may allow firms to improve sharply the timing of offerings to take advantage of rate or price "windows.")

Thirty-six participating executives believe the days of truly lengthy maturities—30 or 40 years or even longer—are gone. These participants see the duration of debt instruments contracting, sometimes sharply, in the years ahead as both lenders and borrowers attempt to deal with the various disruptive forces that have buffeted the debt market of late. A retailing executive, for example, expects "a shortening of maturities, with fixed-rate maturities in excess of 15 years being the exception rather than the rule."

Many respondents are of the opinion that the course of the debt market over the next few years is largely dependent upon the outcome of the Administration's economic policies, especially as they have an impact on

Table 3: Expected Changes in Long-term Debt Market, 1982-1986

Forecast	Number of Mentions
Continuance of prevailing volatility	43
Shortened maturities	36
Impact of economic policies decisive	23
Return toward historical pattern	16
Diminished accessibility	8
Greater reliance on foreign markets	7
Total mentions	133

inflation and deficits. Their success, they believe, would prompt a return to stability; their failure, a continuation of the existing turbulence.

Some of those queried see the market returning to its historical pattern. Lower inflation and interest rates are viewed as the catalysts that will induce issuers to offer long-term fixed-rate debt instruments and buyers to accept them. However, several of this conviction temper their prognostications by admitting wishful thinking may, to some extent, underlie them.

Eight of those surveyed see the debt market becoming far more discriminating in the years ahead. If the scenario they envision actually unfolds, credit standards will be raised and only borrowers with top credentials will be able to float public issues. Others, with lower ratings, will have to look elsewhere for funding. And purchasers of private placements are also expected to become less accommodating and more insistent upon restrictive covenants in loan agreements.

Neither the attractive rates recently available in the dollar-denominated Eurobond market, nor those available in the Swiss franc, Kuwaiti dinar, and Japanese yen markets have gone unnoticed. Seven participants expect domestic firms to take increasing advantage of such overseas opportunities in the future. Issuance of foreign currency bonds is expected to grow, especially when rate differentials between foreign and domestic markets are deemed sufficient to compensate for the exchange and political risks involved in these financings. And international banking facilities (IBF's), such as that newly established in New York, may prove attractive borrowing sources for overseas subsidiaries of domestic corporations.

Role of Financial Futures

Financial futures (or interest-rate futures as they are often called) are agreements to take or make deliveries of underlying securities, such as Treasury bills, on fixed future dates for prices set at the time of contract. They may be employed for speculation or for protection against interest-rate fluctuations. While these contracts

call for actual delivery of the instruments, the vast bulk are closed out by offsetting transactions before actual transfers take place.

To provide an indication of how a firm might use the financial futures market to hedge its interest-rate bets, a simple illustration is useful. Consider the case of a prospective borrower that contemplates a \$100 million debt issue some months hence. If management believes interest rates at the offering time will be considerably higher than at the planning time, it may decide to sell short 500 to 1,000 Treasury bond futures contracts. Since each contract represents \$100 thousand, the entire transaction involves \$50 to \$100 million. Provided interest rates rise as anticipated, the borrower might have to pay 100 basis points or so above what might have been required earlier for the financing, but it would be able to buy back the futures contracts at a profit (prices fall as rates rise) and thus mitigate the impact of the rate increase. Of course, a lower coupon would attach to the offering were rates to fall in the interim, but a loss (prices rise as rates fall) would be sustained in closing out the interest-rate contract and a higher effective cost would apply to the issue than had the futures transaction been foregone entirely. Therein, for many companies, lies the rub.

Among those queried, the use of financial futures is quite limited. Seventy-two of the ninety-four executives commenting have neither employed nor evaluated them. (One of these clarifies his response by indicating an absence of direct involvement, suggesting his firm may be the beneficiary of one or more of the interest-rate protection programs based on financial futures being offered by certain financial institutions.) Nineteen other participants have considered or are studying the various applications of interest-rate futures. While none of these is presently relying on financial futures, some anticipate their eventual implementation. Only three respondents now use financial futures to help control their interest costs—ordinarily in connection with the issuance of commercial paper or the investment of short-term funds.

Why is direct corporate use of financial futures so restricted? There are a number of possible explanations. For one, some consider such dealings to be unduly chancy and outside the realm of sound business practices. (Boosters of futures trading demur, maintaining that failure to hedge, especially by rate-sensitive organizations, actually constitutes speculation.) For another, futures trading in interest rates is a complex area involving opportunity as well as realized gains and losses that requires experienced managers, not presently available in adequate numbers.

The difficulty encountered in arranging a perfect hedge is also a deterrent. Cross or imperfect hedges—the use of Treasury bill futures to control interest rate costs on the rollover of commercial paper, for instance—may not produce precisely offsetting moves and are, therefore, deemed inefficient by detractors.

Other reasons advanced for the avoidance of interest-rate futures include uncertainty regarding legal and accounting issues and, on the part of utilities, anxiety about creating rate-related regulatory problems. And a few that attempt to adjust debt maturities based on their thoughts on interest rate trends, or that employ floating-rate debt, find futures redundant.

Industrial Revenue Bonds

Industrial revenue bonds (IRB's) or industrial development bonds (IDB's), as they are often termed, are tax-exempt obligations issued by states, local governments, or their agencies, on behalf of private corporations. Typically, proceeds of these financings are used to construct facilities that are leased to companies. Rental payments under the lease arrangements are used to service and retire the IRB's before title to the facilities is passed to the corporations enjoying them.

Although available for almost half a century, IRB's were little used initially, with only a few southern states employing them to attract industry. Nowadays, their use is widespread, with all save a handful of the 50 states authorizing them.

Because interest payments on IRB's are not subject to federal income taxes, corporate users can offer lower rates on them than would otherwise be possible and thus realize significant savings. Of course, except for pollution control and certain other public welfare facilities, a project must conform with the \$10 million limitation on capital expenditures established by the Revenue Act of 1978 in each eligible jurisdiction to qualify for IRB financing.

On account of the dollar constraint, projects financed through IRB's tend to be of modest size. But this restriction has not proven a serious impediment to all. Indeed, many with a need for modestly priced, geographically dispersed facilities, including very large corporations, have found such financings a boon.

While originally designed to encourage industrial development, usually by attracting small firms to an area, IRB's are increasingly being used by larger companies to establish retail and service outlets. The amount of such financings was estimated at several billion dollars in 1980—with at least a small percentage of these obligations represented by 30-year floating-rate bonds. The sale of other IRB's—those for pollution control which are not subject to quantity limits—added considerably to the total volume.

Past and Contemplated Use

Seventy-three, or about three-fourths of the 97 commenting participants, indicate that they have utilized IRB financing on one or more past occasions. Lower cost was the overwhelming reason adduced for the use of this approach. The lengthy maturities available through this financing technique received infrequent mention.

Some of the 24 respondents who have not relied on IRB's for any part of their financing programs explain that they had few eligible programs and those were of such small size that administrative drawbacks would have outweighed cost benefits. Others have avoided industrial revenue bonds because of a philosophical belief that commercial ventures should not be subsidized. One company that has not used IRB's is domiciled in a state that does not authorize them.

Future intentions pretty much parallel past experiences. Seventy-four participants expect to issue industrial revenue bonds during the next two years; seventeen do not; and twelve consider such issues possibilities, with issuance or nonissuance largely dependent upon opportunity; and four do not reveal their plans.

Recommendations

As the volume of industrial revenue bonds has risen, so also has the controversy surrounding their appropriateness. On the one hand, advocates see these issues making worthwhile contributions to business expansion and job creation and urge a continuance of the status quo. On the other, adversaries believe that, in many cases, IRB's provide discount financing for dubious projects at the expense of all taxpayers; they seek Congressional reform. Although Table 4 shows that most survey respondents expressing a view think the use of IRB's should be promoted, it also indicates that a significant minority hold opposite, or diverging, opinions.

Many executives who favor the encouragement of IRB financing believe such issues provide benefits not only for companies but also for communities by lending support to marginal projects that would not be implemented if conventional financing was required. Others think IRB's appropriate for pollution control and other public welfare projects that offer little, if any, profit potential. Still other proponents maintain that IRB financing should be further encouraged by upping the existing \$10 million limit on eligible projects.

Some of those calling for restraint seek to eliminate what they consider abuses—the employment of IRB's for the construction of hamburger stands, bookstores and the like, for example. And others would like to see regulations covering the use of IRB's tightened because of what they perceive to be their deleterious effects: federal grants to private enterprises, restrictions on the free flow of funds in capital markets, and imposition of higher costs on "legitimate" tax-exempt issues, such as school-bond offerings.

Respondents who believe the use of IRB's should be both encouraged and constrained, for the most part support them for manufacturing facilities in depressed areas, but oppose other applications especially in the retail and service fields. Those who hold IRB financing

Table 4: Participants' Recommendations Regarding IRB Use

<i>Suggested Action</i>	<i>Number of Mentions</i>
Encourage issuance	53
Constrain issuance	20
Both encourage and constrain issuance	12
Neither encourage nor constrain issuance	5
No opinion	7
No response	10
Total mentions	107

should neither be encouraged nor restrained, do so out of the conviction that it is best to leave well enough alone.

Following are some typical statements from the various camps:

"As the use of industrial revenue-bond financing can represent an attractive opportunity to business as well as afford localities the opportunity to encourage business investment in accordance with their needs and objectives, its employment as a financing mechanism should probably be encouraged rather than constrained."

Chief financial officer, a manufacturing company

"Use of IDB's should be constrained since they obviously have an impact upon the revenue needs of the Federal Government. The abuse of such instruments and the related tax avoidance could, in the long run, be detrimental to the national economy."

Chief financial officer, a utility company

"Use of the instruments in conformity with their original objectives should be encouraged. Abuses of industrial revenue-bond financing, such as those that have been discussed in some detail recently, should be constrained."

Treasurer, a manufacturing company

"The use of industrial-revenue bonds should be neither encouraged nor constrained. Encouragement can lead to abuses resulting in the opportunity to use these bonds being taken away from everyone. Constraint can increase the already high level of red tape and bureaucratic procedure involved in the issuance of the bonds. Constraint can also limit the economic-development aspects of industrial-revenue bonds, thus preventing worthwhile projects from being undertaken."

Treasury official, a manufacturing company

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Experience with Inflation Accounting in Annual Reports

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Director, Financial Management
and Accounting Research*

The Conference Board



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